

# Best Management Practices

MISSOURI DEPARTMENT OF CONSERVATION



## Neosho Madtom

*Noturus placidus*

**Common name** • Neosho Madtom

**Scientific name** • *Noturus placidus*

**Federal status** • Threatened

**State status** • Endangered

### Ecology

Neosho madtoms were historically located in localized areas in Missouri, Kansas and Oklahoma. In southwestern Missouri, Neosho madtoms are found in medium-sized streams with moderate gradients, permanent flow, and abundant gravel and cobble. They live at the bottom of the stream under rocks, often moving between the spaces in the gravel and cobble in riffles or runs in clear water. Neosho madtoms are most active at night, foraging primarily within three hours after sunset on aquatic insects, including larvae of caddisflies, mayflies, dipterans and midges. Spawning typically takes place in June and July. Madtoms make cavity nests in protected hiding places where the eggs are laid and then guarded by one or both parents. Neosho madtoms are the smallest Missouri catfish, with adults commonly 1.8-3.0 inches in length.

### Reasons for Decline

Although there is no indication that Neosho madtoms were ever more abundant in Missouri than they are currently, dam construction and sedimentation from clearing of land have led to declines in Neosho madtom numbers in Oklahoma and Kansas. Localized threats include construction of dams and impoundments, unrestricted sand and gravel removal, and habitat degradation due to agricultural runoff containing pesticide chemicals and waste from livestock.

### Specific Recommendations

Even though historical records suggest that the abundance and distribution of the Neosho madtom in Missouri have not been significantly altered, it is important that current and potential habitat be protected. To do this, project activities in the Neosho madtom range should minimize impact to streams and riparian corridors.

- Removal of gravel should take place at least 20 feet from the water line and should not be removed between April 15 and July 15.
- Bank stabilization materials should consist only of rock, clean broken concrete or similar materials free of pollutants, silt and extraneous debris, including exposed rebar.
- Creation of impoundments should be avoided in Neosho madtom habitat.
- For culvert installation, the top elevation of the floor should be approximately the same as the existing streambed to avoid upstream head cutting and provide fish passage at low flows.
- Erosion and sediment controls should be implemented, monitored and maintained for the duration of the project.

### General Recommendations

Refer to Management Recommendations for Construction Projects Affecting Missouri Streams and Rivers.

### Information Contacts

For further information regarding regulations for development in rivers and streams, contact:

Missouri Department of Conservation  
Policy Coordination Section  
P.O. Box 180  
2901 W. Truman Blvd  
Jefferson City, MO 65102-0180  
Telephone: 573/751-4115

Missouri Department of Natural Resources  
Division of Environmental Quality  
P.O. Box 176  
Jefferson City, MO 65102-0176  
Telephone: 573/526-3315

U.S. Army Corps of Engineers  
Regulatory Branch  
700 Federal Building  
Kansas City, MO 64106-2896  
Telephone: 816/983-3990

U.S. Environmental Protection Agency  
Water, Wetlands, and Pesticides Division  
901 North 5th Street  
Kansas City, KS 66101  
Telephone: 913/551-7307

U.S. Fish and Wildlife Service  
Ecological Services Field Office  
608 E. Cherry Street, Room 200  
Columbia, MO 65201  
Telephone: 573/876-1911

## **Disclaimer**

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